

APPLN. OF: FERRAND ET AL

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FOR: PASSIVE Q-SWITCHED MICROLASER WITH CONTROLLED POLARISATION

DOCKET: BREV 12923

BOX PATENT APPLICATION

The Commissioner of Patents & Trademarks  
Washington, D.C. 20231PRELIMINARY AMENDMENT

Dear Sir:

Applicants respectfully request that you make the following amendments prior to examination.

## IN THE CLAIMS:

Please cancel claims 1-16.

Please add new claims 17-32 as follows:

17. Laser cavity with controlled polarization containing a substrate made of a doped or undoped active laser material  $Y_3Al_5O_{12}$  (YAG) on which a monocrystalline layer of saturable absorbent material made of doped YAG is deposited directly by liquid phase epitaxy or by a similar process, in which the said active laser material has a [100] orientation, and the said monocrystalline layer of saturable absorbent material is deposited with the same [100] orientation.

18. Laser cavity according to claim 17, in which the said monocrystalline layer of doped saturable absorbent material is obtained by liquid phase epitaxy (LPE).

19. Cavity according to claim 17, in which the substrate is a YAG active laser material, doped by one or several doping ion(s) that confer active laser material properties on it, and for example chosen among the Nd, Cr, Er, Yb, Ho, Tm, and Ce ions.